[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-1020; Directorate Identifier 2013-SW-078-AD;

Amendment 39-18172; AD 2015-11-09]

RIN 2120-AA64

Airworthiness Directives; Sikorsky Aircraft Corporation (Type Certificate

Previously held by Schweizer Aircraft Corporation) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for Sikorsky Aircraft Corporation (type certificate previously held by Schweizer Aircraft Corporation)

(Sikorsky) Model 269D and Model 269D Configuration A helicopters. This AD requires reducing the life limit of the ring gear carrier assembly. This AD was prompted by cracks in the ring gear carrier assembly. The actions are intended to reduce the life of the ring gear carrier assembly to prevent failure of the main rotor transmission, loss of engine power to the main rotor, and subsequent loss of control of the helicopter.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this AD, contact Sikorsky Aircraft

Corporation, Customer Service Engineering, 124 Quarry Road, Trumbull, CT 06611; telephone 1-800-Winged-S or 203-416-4299; email sikorskywcs@sikorsky.com. You may review a copy of the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Norman Perenson, Aviation Safety Engineer, New York Aircraft Certification Office, Propulsion & Services Branch, FAA, 1600 Stewart Ave., Westbury, New York; telephone (516) 228-7337; email Norman.Perenson@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On December 15, 2014, at 79 FR 74037, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 by adding an AD that would apply to Sikorsky Model 269D and Model 269D Configuration A helicopters with a certain part-numbered ring carrier assembly installed. The NPRM

proposed to require reducing the life limit of the ring carrier assembly from 6,000 hours time-in-service (TIS) to 5,000 hours TIS by revising the Airworthiness Limitations

Section of the applicable maintenance manual and by removing from service any ring carrier assembly that exceeded the new life limit. The NPRM was prompted by the discovery of a crack in the ring gear carrier assembly, which extended around the entire circumference of the flange and intersected some of the bolt holes but did not propagate "bolt hole to bolt hole." A metallurgical evaluation determined that fretting caused multiple origin fatigue cracking on the ring gear carrier assembly. The proposed requirements were intended to reduce the life of the ring gear carrier assembly to prevent failure of the main rotor transmission, loss of engine power to the main rotor, and subsequent loss of control of the helicopter.

Comments

We gave the public the opportunity to participate in developing this AD, but we did not receive any comments on the NPRM (79 FR 74037, December 15, 2014).

FAA's Determination

We have reviewed the relevant information and determined that an unsafe condition exists and is likely to exist or develop on other products of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

Related Service Information

Sikorsky issued 269D Helicopter Alert Service Bulletin No. ASB DB-040A, Revision A, dated December 4, 2012, to implement a reduction in service life of the ring gear carrier assembly, part number 269A5194, from 6,000 flight hours to 5,000 flight hours.

Costs of Compliance

We estimate that this AD will affect 16 helicopters of U.S. Registry.

We estimate that operators may incur the following costs in order to comply with this AD. We estimate a minimal cost to change the life limit of the ring gear. If required, we estimate it would take 27.5 hours to replace a ring gear carrier assembly at \$85 per work hour. Required parts would cost \$7,591 for a total of \$9,929 per helicopter.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII,
Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress
charges the FAA with promoting safe flight of civil aircraft in air commerce by
prescribing regulations for practices, methods, and procedures the Administrator finds
necessary for safety in air commerce. This regulation is within the scope of that authority
because it addresses an unsafe condition that is likely to exist or develop on products
identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the

national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- 1. Is not a "significant regulatory action" under Executive Order 12866;
- 2. Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
- 3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
- 4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2015-11-09 Sikorsky Aircraft Corporation (Type Certificate Previously Held By Schweizer Aircraft Corporation): Amendment 39-18172; Docket No. FAA-2014-1020; Directorate Identifier 2013-SW-078-AD.

(a) Applicability

This AD applies to Sikorsky Aircraft Corporation Model 269D and Model 269D Configuration A helicopters with ring gear carrier assembly, part number (P/N) 269A5194, installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as a fatigue crack in a ring gear carrier assembly. This condition could result in failure of the main rotor transmission, loss of engine power to the main rotor, and subsequent loss of control of the helicopter.

(c) Effective Date

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

Before further flight:

(1) Revise the Airworthiness Limitations Section of the applicable maintenance manual by reducing the life limit of the ring gear carrier assembly, P/N 269A5194, from 6,000 hours time-in-service (TIS) to 5,000 hours TIS.

(2) Remove from service any ring gear carrier assembly, P/N 269A5194, with 5,000 or more hours TIS.

(f) Alternative Methods of Compliance (AMOCs)

- (1) The Manager, New York Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Norman Perenson, Aviation Safety Engineer, New York Aircraft Certification Office, Propulsion & Services Branch, FAA, 1600 Stewart Ave., Westbury, New York; telephone (516) 228-7337; email Norman.Perenson@faa.gov.
- (2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

(g) Additional Information

Sikorsky 269D Helicopter Alert Service Bulletin No. ASB DB-040A, Revision A, dated December 4, 2012, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact Sikorsky Aircraft Corporation, Customer Service Engineering, 124 Quarry Road, Trumbull, CT 06611; telephone 1-800-Winged-S or 203-416-4299; email sikorskywcs@sikorsky.com. You may review a copy of information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 6300 Main Rotor Drive System.

Issued in Fort Worth, Texas, on May 29, 2015.

Lance T. Gant,

Acting Directorate Manager, Rotorcraft Directorate, Aircraft Certification Service.

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